

#Returns the maximum value that can be stored by the bag

```
def knapSack(W, wt, val, n):
```

```
    # initial conditions
```

```
    if n == 0 or W == 0 :
```

```
        return 0
```

```
    # If weight is higher than capacity then it is not included
```

```
    if (wt[n-1] > W):
```

```
        return knapSack(W, wt, val, n-1)
```

```
    # return either nth item being included or not
```

```
    else:
```

```
        return max(val[n-1] + knapSack(W-wt[n-1], wt, val, n-1),
```

```
                   knapSack(W, wt, val, n-1))
```

```
    # To test above function
```

```
    val = [50,100,150,200]
```

```
    wt = [8,16,32,40]
```

```
    W = 64
```

```
    n = len(val)
```

```
    print ("output is:",knapSack(W, wt, val, n))
```

OUTPUT:

output is: 350